

Application No. 10/507,075
Amendment dated February 2, 2009

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Docket No.: H0075.70099US00

AMENDMENTS TO THE CLAIMS

OK TO ENTER: /N.D./

Claims 1.-29. (Canceled)

30. (Previously presented) A tripod head, in particular a camera tripod head, comprising:

- a base member,
- a tiltable assembly, which, on the one hand, is connected to said base member so as to be rotatable about a tilt axis and to which, on the other hand, a mounting, particularly a camera mounting, is securely attachable,
- a means for compensating a tilt moment that occurs during the tilt movement, said means having at least one energy-storing member that is freely supported on said base member,
wherein
- said means for compensating the tilt moment has at least one carrier connected to said tiltable assembly at a position some distance away from said tilt axis so that it is movable with said tiltable assembly around said tilt axis and has at least one pulling member that interacts with said carrier and said energy-storing member so that the carrier acts on said energy-storing member when said mounting tilts, and as a result, said energy-storing member exerts, via said carrier, an essentially sinusoidal return moment on said tiltable assembly and, thus, on said mounting,
- said pulling member, starting from said carrier, running essentially perpendicular to said tilt axis toward a deflection point, and after the deflection, said pulling member running essentially parallel to said tilt axis to a movable support means, wherein said one end of said pulling member is connected to said movable support means, passes from there, via said deflection point, to said carrier, where said pulling member is connected to said carrier, and from there returns, via said deflection point, back to said movable support means and wherein said pulling member is designed as a continuous cable.

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31. (Previously presented) A tripod head according to claim 30, wherein said energy-storing member is a pressure spring or a tension spring or a torsion spring or a spiral spring.
32. (Previously presented) A tripod head according to claim 30, wherein said pulling member is deflected or turned back at least once along a path between said carrier and energy-storing member.
33. (Previously presented) A tripod head according to claim 30, wherein said pulling member is deflected once along a path between said carrier and one end of at least one pressure spring, and a distance from said carrier to said tilt axis, a pre-tension of said pressure spring, and a distance r_b between said tilt axis and the deflection point are chosen such that a counteracting compensating or return moment satisfies the formula

$$M = \left(1 + \frac{r_{s,\max} - r_b + L_{vw,\min}}{\sqrt{r_b^2 + r_s^2 - 2 \cdot r_b \cdot r_s \cdot \cos \alpha}} \right) \cdot c \cdot r_b \cdot r_s \cdot \sin \alpha$$

with an aim that a value of a fraction between brackets, i.e. $(r_{s,\max} - r_b + L_{vw,\min})$ is equal to zero or close to zero, or a value between brackets is 1 or as far as possible close to 1, in which formula

- $r_{s,\max}$ = maximum distance between tilt axis and carrier
- r_s = distance between tilt axis and carrier
- r_b = distance between the tilt axis and a pulling member's point of exit from the deflection point
- $L_{vw,\min}$ = minimum spring pre-tension
- c = spring rate of individual pressure spring
- α = respective tilt angle.

34. (Previously presented) A tripod head according to claim 30, wherein a set of pressure springs is provided.

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35. (Previously presented) A tripod head according to claim 31, wherein said at least one pressure spring is a helical spring.
36. (Previously presented) A tripod head according to claim 31, wherein said at least one pressure spring is aligned essentially parallel to said tilt axis and can be compressed in this direction.
37. (Previously presented) A tripod head according to claim 31, wherein said at least one pressure spring is clamped between a stationary support means and a movable support means, which is movable particularly in the direction of said tilt axis.
38. (Previously presented) A tripod head according to claim 30, wherein one end of said pulling member is connected to a movable support means and another end is connected to said carrier.
39. (Previously presented) A tripod head according to claim 30, wherein said deflection point of said pulling member is formed by a deflector roll which is rotatable around its own roll shaft.
40. (Previously presented) A tripod head according to claim 39, wherein said deflector roll is mounted so as to be pivotable essentially around an axis that passes through a site where said pulling member, coming from said carrier after deflection, leaves said deflector roll in the direction of said movable support means.
- 41.-43. (Canceled)
44. (Previously presented) A tripod head, in particular a camera tripod head, comprising:
- a base member,
 - a tiltable assembly, which, on the one hand, is connected to said base member so as to be rotatable about a tilt axis and to which, on the other hand, a mounting, particularly a camera mounting, is securely attachable,

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- a means for compensating a tilt moment that occurs during the tilt movement, said means having at least one energy-storing member that is freely supported on said base member,
wherein
- said means for compensating the tilt moment has at least one carrier connected to said tiltable assembly at a position some distance away from said tilt axis so that it is movable with said tiltable assembly around said tilt axis and has at least one pulling member that interacts with said carrier and said energy-storing member so that the carrier acts on said energy-storing member when said mounting tilts, and as a result, said energy-storing member exerts, via said carrier, an essentially sinusoidal return moment on said tiltable assembly and, thus, on said mounting,
- said pulling member, starting from said carrier, running essentially perpendicular to said tilt axis toward a deflection point, and after the deflection, said pulling member running essentially parallel to said tilt axis, wherein at least two pulling members are disposed symmetrically relative to said tilt axis.

45. (Previously presented) A tripod head, in particular a camera tripod head, comprising:

- a base member,
- a tiltable assembly, which, on the one hand, is connected to said base member so as to be rotatable about a tilt axis and to which, on the other hand, a mounting, particularly a camera mounting, is securely attachable,
- a means for compensating a tilt moment that occurs during the tilt movement, said means having at least one energy-storing member that is freely supported on said base member,
wherein
- said means for compensating the tilt moment has at least one carrier connected to said tiltable assembly at a position some distance away from said tilt axis so that it is

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movable with said tiltable assembly around said tilt axis and has at least one pulling member that interacts with said carrier and said energy-storing member so that the carrier acts on said energy-storing member when said mounting tilts, and as a result, said energy-storing member exerts, via said carrier, an essentially sinusoidal return moment on said tiltable assembly and, thus, on said mounting.

- said pulling member, starting from said carrier, running essentially perpendicular to said tilt axis toward a deflection point, and after the deflection, said pulling member running essentially parallel to said tilt axis, wherein there is a symmetrical arrangement on both sides of said tilt axis, a continuous pulling member is provided, said pulling member being of a continuous design as a cable in a region of said carriers.

46. (Previously presented) A tripod head according to claim 45, wherein a carrier assembly formed from a deflection combination that each comprises two deflection points.
47. (Previously presented) A tripod head according to claim 46, wherein said deflection points are formed by a deflector roll, whereby at said two deflection points, one deflection point is formed by a fixed deflector roll and the other deflection point is formed by a pivotable deflector roll.
48. (Previously presented) A tripod head according to claim 30, wherein said at least one carrier is rotatable around a shaft that is parallel to said tilt axis.
49. (Previously presented) A tripod head according to claim 30, wherein said at least one carrier is perpendicular to said tilt axis, preferably continuous, movable in terms of location and fixable in the respective position.
50. (Currently amended) A tripod head according to claim ~~42~~ 30, wherein said pulling member passes through or loops around said carrier.
51. (Previously presented) A tripod head according to claim 30, wherein said pulling member is clamped within said carrier.

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52. (Previously presented) A tripod head according to claim 30, wherein said pulling member is inextendible.
53. (Previously presented) A tripod head according to claim 52, wherein said pulling member is prestretched.
54. (Previously presented) A tripod head according to claim 52, wherein said cable is a wire or a laid or braided steel or aramid-fiber cable.
55. (Previously presented) A tripod head, in particular a camera tripod head, comprising:
- a base member,
 - a tiltable assembly, which, on the one hand, is connected to said base member so as to be rotatable about a tilt axis and to which, on the other hand, a mounting, particularly a camera mounting, is securely attachable,
 - a means for compensating a tilt moment that occurs during the tilt movement, said means having at least one energy-storing member that is freely supported on said base member,
wherein
 - said means for compensating the tilt moment has at least one carrier connected to said tiltable assembly at a position some distance away from said tilt axis so that it is movable with said tiltable assembly around said tilt axis and has at least one pulling member that interacts with said carrier and said energy-storing member so that the carrier acts on said energy-storing member when said mounting tilts, and as a result, said energy-storing member exerts, via said carrier, an essentially sinusoidal return moment on said tiltable assembly and, thus, on said mounting,
 - said pulling member, starting from said carrier, running essentially perpendicular to said tilt axis toward a deflection point, and after the deflection, said pulling member running

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essentially parallel to said tilt axis, wherein at least one groove is provided within a deflector roll for partly receiving and guiding said pulling member.

56. (Previously presented) A tripod head according to claim 30, wherein said carrier is a carrier pin aligned parallel to said tilt axis.

57. (Canceled)